Coping with changes in Higher Education in South Africa

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Introduction
Since the 1994 non-racial democratic elections in South Africa, rapid changes have taken place in the political, cultural and social spheres in this multicultural, multilingual country. The educational environment has also been subjected to changes. In the context of a history of educational backlog and disadvantaged learners,[1] increased access has become the cornerstone of government policy for the higher education sector (Higher Education Act, 1997).

Educational backlog
Between 1910 to 1948, South Africa was a Union governed by South African political parties with the British Monarch as Head of State. The governments of the day were generally well-disposed towards Britain, except for a short period between 1924 and 1933. The policy of the all-white governments of the day was that of the `guardianship of the Africa peoples.' The system of education was largely British-derived and influenced. Most schools, vocational colleges and teacher training colleges had been established by missionaries and were under the control of a variety of church denominations (Reader's Digest, 1988).

In 1948, the Nationalist Party gained political power in South Africa. This party was a strongly Afrikaner nationalistic movement which advocated total segregation and the separation of `Europeans' and `Non-Europeans' in all spheres (du Pré, 1994). In terms of this policy of separateness (called `Apartheid'), the entire educational system was placed under government control in the 1950s and segregated along the racial lines which were entrenched in the Population Registration Act of 1950. Separate departments were set up to administer education along segregated lines. All educational institutions designated for a particular racial group were barred from admitting persons from other racial groups (du Pré, 1994).

A hierarchy of segregation emerged in the 1960s. Separate education departments were set up to administer institutions for persons classified `European'(`White'), `Coloured' (persons of mixed ancestry), `Asiatic' (persons of Asian origin, generally referred to as `Indian') and `Native' (also referred to as `Bantu', African or Black). Resources were allocated along the same hierarchical lines:  most were allocated to institutions designated for `Europeans', then to `Coloureds' and so on down the line (du Pré, 1994). Thus resources were allocated unevenly and over time led to huge disparities in provisioning, infrastructure, teaching resources, and the quality of education.

By the time a new non-racial, democratic dispensation was ushered in on 27 April 1994, the gap between the school systems for white and non-white South Africans had become a chasm. Amongst the black African population (which constituted 85% of the South Africa population) the educational system had all but collapsed, exacerbated by poor infrastructure and support structures in the townships and rural areas where most blacks lived.

Higher Education after 1994
After 1994, a single national department of education was established. The provincial departments of education oversaw all education up to high school level. Post-secondary school education became the responsibility of the national department of education. The racial barriers which had divided education in all spheres were abolished. At higher education level, the main task of the national department of education was to provide access for all South Africans to all

institutions of higher education (National Plan for Higher Education, 2001). `Massification' became the order of the day and higher education institutions experienced a massive influx of students. The years of political, social and educational disadvantagement immediately became apparent. Students applying for entry into higher education institutions were hopelessly undeprepared.

Language
Prior to 1994 English was, and still is, the mother tongue of only a small percentage of South Africans but it was the general medium of instruction in schools (Venter, 1998). Thus the majority of learners in South African schools have been taught in their second or third language. This created major problems for students when they entered higher education institutions where, except for one or two cases, all instruction, books and other material were available only in English. In some cases the proficiency level of up to 85% of students tested was below the Grade 12 level. Students were therefore unable to properly understand, comprehend and express themselves. English language usage is measured using specific, reliable South African validated tests.[2] Special communication programmes have been created and implemented to assist learners to become proficient in English language usage. Courses such as `English for Academic Purposes',[3] `Vocational English'[4] `Practical English'[5] are now common in many institutions.

Academic underpreparedness
Generally, students entering higher education are academically underprepared. For example, students taking Science at school have been taught by teachers who had not been trained to teach Science, and where they were, schools did not have laboratories or laboratory equipment. Some schools had laboratories and equipment but no Science teachers. Many learners who pass Science at school have never conducted an experiment, nor seen the inside of a laboratory.

The situation with Mathematics was even more depressing. The majority of teachers in black schools had not taken Mathematics as a subject at school. Much of this stems from the philosophy of the policy of Apartheid as expounded by its architect, Dr HF Verwoerd, when as a cabinet minister responsible for the `development' of black South Africans, he insisted that there was no point in teaching a `native' mathematics, when all he was going to be was a labourer (Cameron and Spies, 1988). This view resulted in at least two generations of black South Africans devoid of any preparation in the field of Mathematics (Botha, Cilliers and du Plessis, 2003)[6].

In other subjects, rote learning has been the order of the day and learners are not encouraged to express themselves or to ask questions, nor was critical thinking encouraged. Exposure to learning outside of the classroom was not considered. Field trips were non-existent as this required finances which were not available. Furthermore, important educational sites were off-limits due to race laws.

Academic Support
Higher Education institutions adopted a number of innovative and often desperate measures to address the underpreparedness of students. Academic Support programmes (bridging programmes), were introduced and students spent the first year bridging the gap between Grade 12 and the requirements of the institution before they could enrol or begin their first year programme.

As the word `bridging' had unfortunate connotations (students felt that it perpetuated the notion of inferior `bantu' education to which they had been subjected all of their lives[7]), various other names for such support programmes were used, such as `Foundation Programme' and

Introduction to…'. Foundation programmes allowed students to enrol for the diploma or degree of their choice but receive extra support in their chosen areas of study. In critical areas such as Engineering (which required a good foundation in Science and Mathematics) various specialised programmes were established to assist students such as `*Introduction to Engineering.'* `*Introduction to Information Technology'* was also introduced for students who did not have access to computers at school.[8]

As the need for academic support became clear, special structures and departments were established at higher education institutions in the late 1990s to address the huge gap between high school and higher education. These included departments such as Academic Development (to assist underprepared students), Teaching and Learning Development (to provide support for academic staff addressing the problem of underprepared students), Cognitive Development (to assist with critical thinking and thinking skills) and Curriculum Development (to assist academic staff to develop curricula, syllabi and programmes for the above). Study programmes assist students in study methods, writing assignments, notemaking and time management. Individualised language courses, study programmes and thinking skills designed by departments of student counselling are being utilised to support the process of learning within each programme being offered.

Experiential Learning

In technikons[9] most diploma and degree programmes have an experiential learning component which further assists students to grasp the intricacies of the learning materials in the programmes and its application in the world of work. This cooperative education requires close networking with industry, commerce and work communities.

Cooperative education allows students to benefit from both formal education and training along with first-hand work experience in the marketplace. Commerce and Industry make direct inputs into the planning of programmes through advisory committees. This ensures that education is constantly relevant and keeps abreast of contemporary movements in all the fields of study offered. The student gains experience in a professional field during the formal studies and begins working life with a knowledge of the marketplace, organisational structures and employer's expectations.

Many technikon students participate in community projects as part of their experiential training. In addition, projects and research are geared towards development involvement with the community and include low-cost housing, education outreaches and health clinics.

Community Services

Community participation has become part of higher education planning (Kraak, 2000). This is mainly due to the realisation that higher education institutions cannot distance themselves from the community. The notion of ivory towers and the attitude of `here we are, you can find us when you need us,' has been replaced by the deep realisation that higher education has to play a major role in addressing the pressing social and economic issues facing this country. The years of neglect of communities and regions has created a Catch 22 situation for higher education: universities and technikons are not in the business of primary and high school education and community work, but if they do not use their resources, knowledge, expertise, infrastructure and research abilities to uplift the community and improve the school system, the numbers and quality of students coming through from the high school sector will decline and deteriorate. This will spell the death knell for many institutions involved in higher education.

Many higher education institutions have established departments to establish links with the community. Students in Social Work departments work in communities; Sociology and

Psychology students conduct research; history students work with communities to record their oral history and traditions; medical schools establish clinics and their students work in these clinics and local hospitals. In some technikons, engineering, building and architectural students form alliances with their own communities to design buildings and use unemployed persons to build clinics, schools, community centers, roads and facilities for water. Bricks are manufactured within the community using traditional methods or equipment provided by the technikon. Engineering, building and architectural students involved in these community projects eventually return to their communities upon completion of their studies to take up positions as project leaders, heads of clinics and community centers and other similar projects.

A new trend is the adoption of schools by higher education institutions. These schools are supported by academic departments in the provision of laboratory equipment, computers, solar power for electricity, office equipment, volunteer teachers, trainee students and library books. Schools become sites for adult education classes and skills development and university and technikon lecturers assist with the development of courses and in the teaching and training process.

Lifelong Learning
The notion of life-long learning is one of the key principles of the South African Qualifications Authority(SAQA).[10] It recognises that individuals should have opportunities for self-improvement at any stage of their lives, be they employed, unemployed or seeking a first job. As the economy grows and develops, so new skills will be demanded and people will need to retrain for them. The provision of opportunities to learn at any age also guarantees second chance opportunities for people, who for a variety of reasons may have ´missed out´.

Not all learners enter the higher education sector. Millions of adults do not have a high school education and there are many who have never been to school. Adult Education classes are held in schools and higher education institutions as a form of community service. Teachers for ABET levels are also trained in universities and technikons. Another trend for higher education is the creation and provision of short courses to meet the needs of the vast working population who need upgrading or training in areas where they are deficient (Department of Labour, 2001)

Many workers have never had an opportunity to enter higher education, but the demands of their jobs require advanced training. Short courses, many developed from established higher education courses, meet this need. Students retain credit for these courses which they can later use to acquire a formal diploma or degree. A process of RPL (recognition of prior learning) has been devised to provide recognition for work experience and other forms of education.

Recognition of Prior Learning(RPL)
The principle of RPL is internationally accepted as widening access to education and training. RPL is currently gathering momentum within South Africa education and training especially since SAQA was established to develop and oversee the National qualifications Framework(NQF). The Committee of Technikon Principals(CTP), which is the association of technikon vice-chancellors, spearheaded the development of the CTP policy on RPL to form the basis of RPL in the higher education sector(du Pré and Pretorius, 2001).

The policy of RPL is being applied in all spheres of higher education to make it possible for persons who were denied access to quality education, higher education and specialised qualifications because of Apartheid. Such persons are increasingly gaining access to higher education and higher qualifications because of the formal acknowledgement of their skills,

knowledge and capabilities arising out of formal, informal or non-formal learning – acquired through study, work or other life experiences.

Skills Development and Learnerships
One of the legacies of apartheid was the relegation of the vast majority of South Africans to the role of low-skilled manual workers. As a result, South Africa is not equipped with the skills it needs for economic and employment growth and social development. Compared to middle-income and advanced industrial countries, South Africa faces specific shortages of professional managers and technicians and craft and skilled workers. Of the four million plus people who are unemployed, some 50 per cent are young people who have completed more than nine years of schooling. Youth unemployment is aggravated by the inadequate provision of technical and vocational education and training opportunities. Just one per cent of secondary school students is enrolled in technical/vocational institutions. In the countries of the OECD, 50 per cent of secondary school-age students are in technical and vocational education programmes. Many small businesses in our country are 'informal'. In practice, many are trapped at the low-value-adding end of the production spectrum. The challenge is to assist these enterprises to climb the value chain and this will require skills (Department of Labour, 2001)

According to the Skills Development Act of 1998, skills development is about enabling and empowering individuals through the acquisition of competencies that are in demand. One of the principles underpinning this vision is lifelong learning. Communities and workplaces are changing continuously. If individuals are to shape these changes and take advantage of them to improve the quality of their lives, they need to upgrade and improve their skills continuously. Learnerships were introduced to provide for a combination of work and study to address the problem of lack of skills as outlined above. The higher education sector is crucial to this process as it will assist in designing the learnership programmes required in terms of this Act and provide the teaching that goes along with it. This process meets to a large extent the need for people who previously did not have an opportunity to improve to high level skills, to be able to acquire these skills, and provide industry and commerce with the opportunity of upgrading its human resources and improving its skills base. There is plenty of scope for persons to add value to their abilities, experience and skills through a constant process or upskilling, reskilling and multiskilling.

Technology Stations Programme
In all developed economies the largest group of employers is made up of small- and medium-sized businesses and it is this sector that has generated the most jobs in recent years. In 1997 the SMME sector in South Africa absorbed nearly 57 per cent of people employed in the private sector and contributed 42 per cent of the gross domestic product. There is potential for increasing the number of small businesses and generating new jobs. Technikons are supporting SMMEs by providing professional, practice-oriented staff, specialised technical and scientific equipment and training courses. Technology stations have been established at technikons to transfer technology to small businesses, especially amongst historically advantaged South Africans and those in rural areas, and to lead them to best practice.

Conclusion
In previous years higher education institutions were ivory towers and students knocked on their doors seeking permission to enter. Universities had stringent admission criteria and only those who complied were granted entry to their hallowed halls. They were not too concerned whether their students were educated for the working world, or acquired skills relevant to industry or commerce. Then attitude adopted was `teaching for the sake of teaching.'

The realities of life after apartheid means that higher education institutions have to play a major role in the reconstruction of the social, cultural and economic fabric of South African society. It is

heartening to note that the higher education sector as a whole has accepted the challenge and has transformed itself to meet the needs of new learners, the present student cohort and communities in a way that it had never done before.

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Endnotes

[1] The term `learner' will be used for those at primary and high school, and `student' for those at higher education level.

[2] An example is the Vaal Scan which is used at the Vaal Triangle Technikon, a university of technology, which draws 85% of students from the black African community, mostly from rural areas. This test determines the proficiency at each high school grade level.

[3] This course is offered at the University of Transkei, a rural university drawing student mainly from the Xhosa language group. It was a compulsory course for all students prior to enrolling for the first year English course.

[4] This course is offered at Vaal Triangle Technikon for all first year students whose Vaal Scan results indicate that their English proficiency is below Grade 12 level. Upon successful completion they can enrol for the Communication 1 course.

[5] This course was designed at the University of South Africa as an option for students whose first language was not English, or for those students whose final mark in Grade 12 was not suitable for entry into the English I.

[6] In a recent survey, South Africa came last of 45 countries in Mathematics proficiency (TIMSS report, 1997).

[7] Education for black South Africans was administered by the Department of Bantu Education from the 1960s to the 1990s (even though the word `Bantu' was eventually replaced). Because the hallmark of this educational system was one of inferior, substandard education, blacks who had to endure this type education for almost four decades sarcastically referred to it as `Bantu' education.

[8] Many students touch a computer for the first time when they enter higher education. This again stems from the lack of finance and resourcing of black schools, and the lack of electricity in vast areas of South Africa. The use of solar power is becoming widespread as a means of providing power for rural schools. The absence of telephone facilities in rural areas also means that many learners have no knowledge of the internet.

9 The South African higher education system consists of universities (in the traditional sense) and technikons. Technikons are the equivalent of universities of technology, technological universities, technical universities or institutes of technology found in countries such as the USA, Britain, Australia, New Zealand and Hungary.

[10] The South African Qualifications Authority Act No. 58 of 1995 established SAQA in order to provide for a national qualifications framework (see http://www.saqa.org.za).